

REMARKS

This Amendment is in response to the Office Action of June 1, 2004, in which the Examiner rejected the claims as unpatentable over Sakagami (JP 355) in view of Elton 046..

Applicants wish to thank the Examiner for clarifying the office action during a telephone conference conducted with Applicants' Representative on or about June 10, 2004. During the course of the discussion, Applicants' Representative requested clarification regarding the rejection of claim 115. Applicants' Representative asserted that the references cited by the Examiner do not show or suggest such a structure, including a conductor which comprises a plurality of insulated and uninsulated conductors.

Applicants' representative also indicated that the arrangement of a flexible conductor having insulated and uninsulated strands was considered allowable in a number of related applications dealing with high voltage devices. The Examiner requested that Applicants refer to this in their reply.

The Examiner stated that he did not consider the feature of the insulated and uninsulated strands in his rejection, and that he would be willing to reconsider the rejection on that basis.

In addition, Applicants' representative brought to the Examiner's attention, a patent to Takaoka 4,571,453, a copy of which is attached for his convenience. Takaoka was cited by the Applicants in the Information Disclosure Statement. This patent deals with a transmission line having conductors which are insulated and uninsulated. This patent was considered in the related applications, and the claims were allowed over this reference.

Applicants assert that the arrangement in Takaoka is adapted to overcome the so called "skin effect" which occurs in transmission lines. The skin effect has to do with the distribution of current across the conductor which may have an effect on transmission efficiency in such transmission lines. The arrangement in Takaoka does not deal with the problems associated with eddy currents that often occur in machine windings. Eddy currents are a concern in the present invention because they create heat losses which are undesirable. In the invention, it is important to prevent eddy currents generated in the winding from propagating across the boundaries between conductors, because the larger the eddy current paths, the greater the losses. Accordingly, the conductive strands are insulated from each

other, thereby limiting the eddy current paths. A few conductors are uninsulated, and make electrical contact with the inner semiconducting layer to establish the equipotential field around the conductor. However, these uninsulated conductors are themselves electrically separated from each other and are insulated from the insulated conductors. Thus, eddy currents do not propagate beyond the confines of each individual conductor. It is clear that the arrangement in Takaoka is different and is for a different purpose. Accordingly, Applicants assert that Takaoka does not, either alone or in combination with the cited references, suggest the claimed invention.

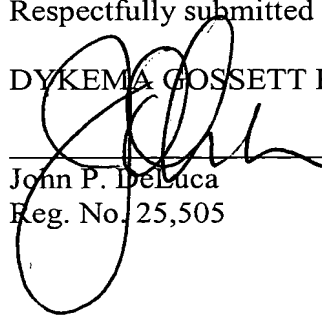
Claim 68 has been amended in order to incorporate this feature which is recited in claim 115. Claim 68 has been amended to move the modifier "flexible" from the end of the clause to just before the term "winding" which it modifies. In claim 69, the term "translation" has been changed to "transition" in order to correct a typographical error. In claim 115, the term "flexible" has been added to modify the term "high voltage winding" thereby rendering the claims more consistent.

In view of the foregoing, it is respectfully requested that the Examiner reconsider his rejection of the claims, the allowance in which is earnestly solicited.

The Commissioner is authorized to charge Deposit Account No. 04-2223 for fees, which may be required in this matter or credit any overpayment thereto.

Respectfully submitted

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